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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/544,742	04/07/2000	Alex Kuperman	44251	2331

109 7590 05/12/2003

THE DOW CHEMICAL COMPANY
INTELLECTUAL PROPERTY SECTION
P. O. BOX 1967
MIDLAND, MI 48641-1967

EXAMINER

JOHNSON, EDWARD M

ART UNIT	PAPER NUMBER
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1754

23

DATE MAILED: 05/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/544,742

Applicant(s)

KUPERMAN ET AL.

Examiner

Edward M. Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9,18-32 and 37 is/are rejected.
- 7) ☒ Claim(s) 8 and 10-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, 9, 18, 22-27, and 29-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Iwakura et al. US 5,502,020.

Regarding claim 1, Iwakura '020 discloses a process of making an oxidation catalyst comprising gold on a titania wherein the process comprises impregnation of a titania carrier (see column 2, lines 37-39 and column 3, lines 37-41) with gold (see abstract and column 3, lines 12-13), wherein the aqueous impregnation solution may have alcohol or, specifically, ethanol added (see column 6, lines 39-43, Table 2, and Example 21), either of which Applicant defines as a preferred reducing agent (see instant specification, page 8). Intended use recitations are not generally accorded undue patentable weight in process of making claims. However, Iwakura further discloses that the

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oxidation may take place in the presence of air, which contains both hydrogen and oxygen (see column 9, lines 39-41).

Regarding claim 2, Iwakura '020 discloses chloroaurates of potassium and sodium (see paragraph bridging columns 4-5).

Regarding claim 3, Iwakura '020 discloses 10-10,000 ppm (see claim 2).

Regarding claims 4-7, and 9, Iwakura '020 discloses the aqueous impregnation solution may have alcohol or, specifically, ethanol (see column 6, lines 39-43, Table 2, and Example 21), either of which Applicant defines as a preferred reducing agent (see instant specification, page 8).

Regarding claim 18, Iwakura '020 discloses titania carrier (see column 2, lines 37-39 and column 3, lines 37-41).

Regarding claims 22-24, Iwakura '020 discloses 10-4000 ppm rare earth additive metals (see column 3, lines 9-12 and 31-33).

Regarding claim 25-26, Iwakura '020 discloses immersion in aqueous solution and washing by dipping and draining forming a wash coat (see column 6, lines 39-43 and claims 16-18).

Regarding claim 27, Iwakura '020 discloses cesium and alkaline earth metals (abstract), which Applicant specifies and promoter metals (instant specification, paragraph bridging pages 15-16).

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Regarding claim 29, Iwakura '020 discloses room temperature impregnation.

Regarding claims 30-32, Iwakura '020 discloses heating after impregnation in superheated steam at 250 degrees Celsius (see Example 1).

Regarding claim 37, Iwakura '020 that the oxidation may take place in the presence of air, which contains both hydrogen and oxygen (see column 9, lines 39-41) to produce ethylene oxide (abstract).

3. Claims 1, 4-5, 18, 22-23, 26-28, and 20-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Rajaram et al. US 5,480,854.

Regarding claim 1, Rajaram '854 discloses a process for making a catalyst comprising co-precipitation (for lower temperature use) or impregnating (for higher temperature use) metal oxide particles with noble metal precursor, wherein the noble metal may be Au (see abstract and column 2, lines 45-56) and the metal oxide particles may comprise titania (see column 3, lines 14-16), with any reducing agent such as formaldehyde or sodium formate (see column 6, lines 43-44).

Regarding claims 4-5, Rajaram '854 discloses formaldehyde or sodium formate (see column 6, lines 43-44).

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Regarding claims 18, 22-23, and 27 Rajaram '854 discloses titania and ceria (see column 3, lines 14-16).

Regarding claim 26, Rajaram '854 discloses washing (see Examples).

Regarding claim 28, Rajaram '854 discloses incipient wetness impregnation technique (see Example 2).

Regarding claims 30-32, Rajaram '854 discloses calcination after impregnation at 500 degrees Celsius (see Examples).

4. Claims 1-7, 9, 18, 22-23, 25-29, and 31-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Haruta et al. US 4,937,219.

Regarding claim 1, Haruta '219 discloses a process for making a gold catalyst with a titania support (see abstract; column 4, lines 1-4; column 5, lines 53-56) wherein the support is impregnated with chloroauric acid and magnesium citrate (see Example 12), which is a reducing agent.

Regarding claims 2, 4-7, and 9, Haruta '219 discloses chloroauric acid and magnesium citrate solution (see Example 12).

Regarding claim 3, Haruta '219 discloses 9.7 g of chloroauric acid and all the gold deposited (see Example 12).

Regarding claim 18, Haruta '219 discloses titania support (see abstract; column 4, lines 1-4; column 5, lines 53-56).

Regarding claims 22-23 and 27-28 Haruta '219 discloses magnesium nitrate impregnation (see Example 12).

Regarding claim 25, Haruta '219 discloses aqueous solution (see Example 12).

Regarding claim 26, Haruta '219 discloses washing with water (see Example 12).

Regarding claim 29, Haruta '219 discloses 0-80 degrees Celsius (see column 5, lines 60-63).

Regarding claims 31-32, Haruta '219 discloses calcination at 80-800 degrees Celsius (see column 5, lines 32-35 and column 6, lines 30-35).

Allowable Subject Matter

5. Claims 8, 10-17, and 19-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: It would not have been obvious to one of ordinary skill in the art at the time the invention was made to use a reducing agent containing titanium in the process of the instant claims 10, 19, and 21; the loading percentage of the instant claim 20; nor the molar ratio in the process of the instant claim 8.

Response to Arguments

7. Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kuperman et al. US 6,255,499 discloses a claims a process for making a composition comprising specifically oxidized gold.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 703-305-0216. The examiner can normally be reached on M-F 6:30-4:00.

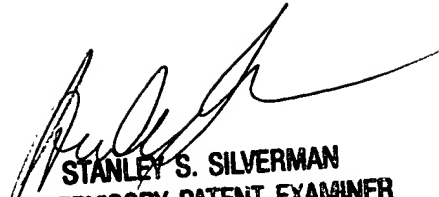
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 703-308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

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EMJ
May 8, 2003



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